

L 34873-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) BC
 ACC NR: AR6014186 SOURCE CODE: UR/0271/65/000/011/A022/A022

AUTHOR: Katkov, F. A.

TITLE: Derived selection methods

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika, Abs. 11A155

REF SOURCE: Vestn. Kiyevsk. politekhn. in-ta. Ser. avtomatiki, elektropriborost.
 i radioelektron., no. 1, 1964, 29-31

TOPIC TAGS: remote control, frequency division multiplex

ABSTRACT: The derived selection methods use several channels in one device for the purposes of selection. If the frequency, time, or frequency-time pulse division is used in each channel, six combination selection methods are formed. Formulas are given for the maximum numbers of combinations. The frequency-combination division method seems to be the most promising; in this method each command is transmitted by a definite combination of multifrequency trains sent over different channels and forming frequency-division codes. A block diagram of the frequency-combination-division remote control system using two channels is presented. The dynamic noise rejection of such a system can be enhanced by using matrices and signal repetition which makes the signal longer. One figure. Bibliography of 1 title. V. M.
 [Translation of abstract]

SUB CODE: 09
 Cord 1/1

UDC: 621.398.001:621.391.13

DIDYK, Boris Sergeyevich, kand. tekhn. nauk; TUPAS, V.I., inzh.,
retsenzent; KATKOV, F.A., doktor tekhn. nauk, red.;
PISARENKO, M.G., inzh., red.

[Frequency and frequency-time code discrete telemetering
systems] Chastotnye i chastotno-vremennye sistemy diskret-
nogo teleizmereniia. Kiev, Tekhnika, 1965. 95 p.
(MIRA 18:9)

SUKHOMLINOV, Maksim Maksimovich, kand. tekhn. nauk; VYKHVANEYS,
Vitaliy Ivenovich, inzh.; KATKOV, F.A., doktor tekhn.
nauk, retsenzent; DIDYK, B.S., inzh., retsenzent;
IVAKHNENKO, A.G., red.

[Number code converters] Preobrazovateli kodov chisel.
Kiev, Tekhnika, 1965. 135 p. (MIRA 18:4)

1. Chlen-korrespondent AN Ukr.SSR (for Ivakhnenko).

L 22584-66 ENT(d)/EMP(v)/T/EMP(k)/EMP(h)/EMP(l) IJP(c)

ACC NR: AF6012961

SOURCE CODE: UR/0143/65/000/001/0015/0020

AUTHOR: Katkov, F. A. (Doctor of technical sciences)

ORG: none

TITLE: Complex, multistage codes ^{16, 44, 55} ₄

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy. Energetika, no. 1, 1965, 15-20

TOPIC TAGS: remote control, signal coding

ABSTRACT: The development of codes is one of the most important phases of remote control technology. The most promising of the interchangeable sample frequency time codes are those based on combinations, fixation of which is simplest. To solve the problem of the requirements for greater frequency bandwidth to produce greater numbers of possible combinations, four basic types of two-stage interchangeable sample codes are described: based on combinations, combinations then displacement, displacement then combination, and on displacement of simple interchangeable sample codes. The increases to be realized in the number of possible combinations and methods of fixation (decoding) for each of the four methods are analysed. [JPRS]

SUB CODE: 09, 13 / SUBM DATE: 26Jul64 / ORIG REF: 002

Cord 1/1 *1/1*

UDC: 621.391.15

L 8805-66 EWT(d)/EWP(1) IJP(c) GG/BB

ACC NR: AP5026962

SOURCE CODE: UR/0103/65/026/010/1793/1799

AUTHOR: Katkov, F. A. (Kiev) 33

ORG: None 44 3

TITLE: Multistage correction codes with simple decoders

SOURCE: Avtomatika i telemekhanika, v. 26, no. 10, 1965, 1793-1799

TOPIC TAGS: signal decoder, error correcting code 16, 44

ABSTRACT: The author proposes a new method for construction of correcting codes based on the use of multistage codes made up of non-repeated combinations of the corresponding fundamental code sent sequentially. The basic advantage of the proposed system of code synthesis over presently used systems for construction of correction codes is the elimination of complexity in the decoder circuits. The proposed method uses well-known rules which relate the code distance to the number of corrected or detected distortions. Construction of two- and three-stage correction codes using basic combinations of time, frequency and frequency-time codes is analyzed. Block diagrams of the decoders are given. Orig. art. has: 4 figures, and 2 tables.

SUB CODE: 09/ SUBM DATE: 24Jun64 / ORIG REF: 001

jw
Card 1/1

UDC: 621.391.154

I 8176-66 EWT(d)/I/EWP(1) IJP(c) BB/GG

ACC NR: AP5025689

SOURCE CODE: UR/0286/65/000/018/0037/0038

AUTHORS: Katkov, F. A.⁴⁴; Karlov, A. M.⁴⁴; Bazutkin, V. V.⁴⁴

ORG: none

TITLE: Device generating code sequences on one set. Class 21, No. 174667

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 37-38

TOPIC TAGS: coding, computer circuit, logic circuit, counter circuit

ABSTRACT: This Author Certificate presents a device generating code sequence on one set based on a distributor with multidigit counters. To simplify the circuit for generation of codes with m qualitative signs in each of the messages selected from a total number of n qualitative signs, the distributor contains m counters with $(n-m+1)$ digits in each. The one record inputs in the unit of each digit of a preceding counter are connected to the outputs of the numerically analogous units of the succeeding counter of the distributor (see Fig. 1). To select m qualitative sign from n , the device contains n logic "OR" circuits. The output of the first unit of the m -th counter of the distributor is connected to the input of the first "OR" circuit. The outputs of the second unit of the m -th counter and of the first unit of the $(m-1)$ counter are connected to the input of the second "OR" circuit. The input of the n -th "OR" circuit is connected to the output of the $(n-m+1)$ unit of the first counter.

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UDC: 621.395.44 681.142

1 8176-66

ACC NR: AP5025689

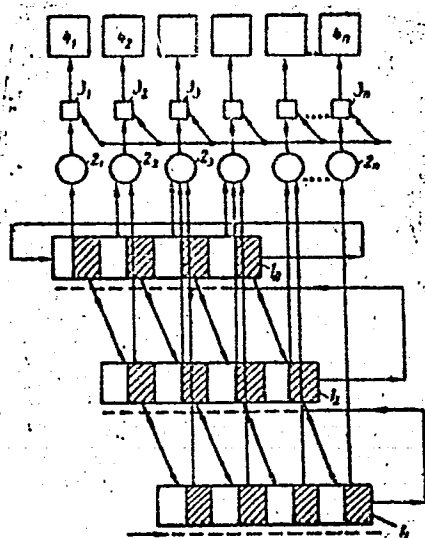


Fig. 1. 1- distributors; 2- "OR" circuits; 3- coincidence circuits; 4- frequency generators

Orig. art. has: 1 diagram.

SUB CODE: DP, EC/ SUBM DATE: 24Aug64
nw

Cord 2/2

ACC NR: AT6022304

SOURCE CODE: UR/0000/66/000/000/0021/0029

AUTHOR: Katkov, F. A.

ORG: none

TITLE: The effectiveness of methods of selection and code formation in telemechanics

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya telemekhaniki. Doklady. Moscow, 1966, 21-29

TOPIC TAGS: signal coding, communication coding, remote control

ABSTRACT: The author compared the efficiencies of utilization of frequency bands and time intervals for various data transmission codes. A single figure of merit is derived for all codes. It is shown that the parallel codes are more effective than sequential especially those sequential codes which require an extra marker pulse for demultiplexer synchronization. The codes using parallel-serial techniques are even better, but their effectiveness depends to a high degree on the code group formation. In general the non-return-to-zero codes are more immune to noise disturbances than the return-to-zero codes. The author supplies tables of comparison for various codes. Orig. art. has: 5 formulas, 3 tables, and 1 figure.

SUB CODE: 09//¹⁷ SUBM DATE: 24Mar66/ ORIG REF: 002

Card 1/1

S/102/62/000/002/003/004
D201/D302

9.8000

AUTHORS: Didyk, B.S., and Katkov, F.O. (Kiyev)

TITLE: A coded combined frequency telemetering system

PERIODICAL: Avtomatika, no. 2, 1962, 69 - 72

TEXT: The authors describe briefly a coded combined frequency telemetering system developed at the Kafedra avtomatiki i telemekhaniki Kiyevskogo politekhnicheskogo instituta (Department of Automation and Telemechanics of the Kiyev Polytechnic Institute). The code is obtained by permutation of m frequencies out of n . The HF signal corresponding to the original value of the measured quantity is transmitted and received continuously. The bloc diagram of the arrangement consists of the following sections: Primary metering device, converting the measured quantity into an angle of rotation or a linear displacement; a readout device transmitting the metering device with a commutator which, through a coder, controls the frequency signal generator. At the receiving end the HF signal passes through high-pass filters which control the decoder, at the output of which is

Card 1/2

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B

A coded combined frequency ...

S/102/62/000/002/003/004
D201/D301

located the receiver. Every discrete value of the measured quantity is thus converted into an HF code which is decoded and displayed on a digital indicating instrument at the receiving end, the whole telemetering system being contactless. The described system has a high degree of interference-suppression and can be used in channels having a high noise level. There are 4 figures and 2 Soviet-bloc references.

SUBMITTED: July 5, 1961

Card 2/2

Катаков, Г.

VYMORKOV, B., inzh.; KATKOV, G., inzh.

Our planet's boiler house. Tekh.mol. 25 no.12:7-8 D '57.
(MIRA 11:1)
(Kamchatka--Geyser)

KATKOV, G.A., inzh.

Using monolithic precast reinforced concrete construction
elements in tunneling. Transp.stroi. 10 no.1:59-60
Ja '60. (MIRA 13:6)
(Precast concrete) (Tunneling)

ARKHANGEL'SKIY, A.S., kand. tekhn. nauk; VASIL'YEV, N.V., kand. tekhn. nauk; GORDIYENKO, B.I., inzh.; SAMOYLOV, V.P., kand. tekhn. nauk; TERENETSKIY, L.N., inzh. Prinimali uchastiye: DEMESHKO, Ye.A., inzh.; KUBENEV, Kh.K., kand. tekhn. nauk; SMORODINOV, M.I., kand. tekhn. nauk; KHRAPOV, V.G., kand. tekhn. nauk; NIKOL'SKIY, I.S., inzh.; KATKOV, G.A., inzh.; VORONTSOVA, N.D., starshiy laborant; BLAGOSLAVOV, Yu.B., kand. tekhn. nauk, nauchnyy red.; SMIRNOVA, A.P., red. izd-va; IGNAT'YEV, V.A., tekhn. red.

[Underground mining in loose rocks] Prokhodka podzemnykh vyra-
botok v sypuchikh porodakh. Pod obshchei red. A.S.Arkhangel'skogo.
Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit. materia-
lam, 1961. 205 p. (MIRA 14:11)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut osnovaniy
i podzemnykh sooruzheniy. 2. Sotrudniki Laboratorii metodov vozve-
deniya podzemnykh sooruzheniy Nauchno-issledovatel'skogo instituta
osnovaniy Akademii stroitel'stva i arkhitektury SSSR (for all
except Blagoslavov, Smirnova, Ignat'yev).
(Mining engineering)

KATKOV, G.A., inzh.

Joint operation in supporting underground workings and surrounding
rocks. Shakht. stroi. 6 no.10:9-12 0 '62. (MIRA 15:9)

1. Institut gornogo dela imeni A.A.Skochinskogo.
(Rock pressure) (Mine timbering)

KATKOV, G.A., gornyy inzh.

"Prefabricated reinforced concrete in underground construction" by V.I. Besspalyi and others. Reviewed by G.A. Katkov. Ugol' Ukr. 6 no.8:45-46 Ag '62.
(MJRA 15:11)

(Mine timbering)
(Precast concrete construction)
(Besspalyi, V.I.)

KATKOV, G.A.; TRUMBACHEV, V.F.

Use of models in studying the interaction of the top covering
of powered supports with the roof rocks. Fiz.-takh. probl.
razrab. pol. iskop. no.1:25-31 '65. (MIRA 18:10)

1. Institut gornogo dela im. A.A. Skochinskogo, Moskva.

KATKOV, G.A.

Study of underground structures using photoelasticity. [Trudy]
NII osn. no.47:27-38 '62. (MIRA 15:6)
(Photoelasticity) (Underground construction)

TRUMBACEV, V.F. [Trumbachev, V.F.], DrSc.; KATKOV, G.A., CSc.

Measuring the stress and determining the load of mine supports by photoelastometric foils. Rudy 12 no.11:400-403 N '64.

1. A.A.Skochinskiy Institute of Mining, Moscow, U.S.S.R.

TRUMBACHEV, V.F.; MOLODTSOVA, L.S.; KATKOV, G.A.

Procedure and results of using the method of photoelastic coatings in
investigating the stressed state of rocks and various structures. Vop.
gor. davl. no.18:70-86 '63. (MIRA 18:7)

ACC NR: AT7002110

(A)

SOURCE CODE: UR/0000/66/000/000/0254/260

AUTHOR: Katkov, G. A.; Molodtsova, L. S.; Trumbachev, V. F.

ORG: none

TITLE: Determination of stresses and external loads on supports of underground equipment

SOURCE: Vsesoyuznaya konferentsiya po polarizatsionno-opticheskomu metodu issledovaniya napryazheniy. 5th, Leningrad, 1964. Polarizatsionno-opticheskiy metod issledovaniya napryazheniy (Polarizing-optical method of investigating stresses); trudy konferentsii. Leningrad, Izd-vo Leningr. univ., 1966, 254-260

TOPIC TAGS: photoelasticity, stress analysis, pressure transducer, structural engineering, epoxy plastic, ~~underground facility~~

ABSTRACT: Photoelastic strips (transducers) made of ED6-M epoxy were used to study the stress conditions on underground equipment supports during operations. Rectangular transducers 50 x 25 x 2 mm, 40 x 20 x 2 mm, and discs of 30 mm diameter were glued at different locations. The best glue compositions were given along with the optimum curing conditions. The ED6-M epoxy had an elastic modulus of 30,000 kg/cm², a Poisson ratio of 0.37, and a sensitivity which allowed deformations as low as $2 \cdot 10^{-5}$ to be measured. Stresses were measured from the values of birefringence. An equation

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ACC NR: AT7002110

was given for the difference in principle stresses $\sigma_1 - \sigma_2$ as a function of the relative change in the light path, thickness of the transducer, optical stress coefficient of the transducer material, and the elastic constants of the structure. A portable polariscope which was used in measuring the changes in light path was shown. A photograph was given showing the locations of the transducers on different supports of underground digging equipment of the M-81 and MKP type. Axial loads and bending moments were determined at these locations. The analysis showed that the load in the lower elements of the supports varied between 3.5 and 5.5 tons. The load on the arms was 8.7 tons corresponding to a stress of 2.9 tons/m². The stress along the frame of the support varied widely, reaching as high as 16 kg/cm² near arm junctions. A schematic drawing was shown of the locations of photoelastic transducers along the mechanized supports of the MKP. The stress profile along the roof of the MKP showed that the stress exceeded 15 tons/m² at one location. This technique could be used to measure absolute or relative stresses in supports or surrounding mountain rock. Orig. art. has: 4 figures, 2 formulas.

SUB CODE: 13,11/

SUBM DATE: 14Jun66/

ORIG REF: 003

Card 2/2

Card 1/1

UDC: 621.313.13-133.3.001.3

ACC NR: AP7002978

SOURCE CODE: UR/0413/66/000/024/0077/0077

INVENTOR: Veksler, B. Ye; Katkov, G. F.; Malinskiy, S. A.; Minkin, M. M.;
Remennikov, V. S.; Rybakov, L. A.; Sokolinskiy, Ye. A.; Fedorov, V. N.; Shmulovich,
I. Sh.; Gertsov, S. M.; Pishchulin, V. V.

ORG: None

TITLE: A seismic prospecting station. Class 42, No. 189598

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 24, 1966, 77

TOPIC TAGS: seismic prospecting, frequency divider, quartz crystal, seismologic
station

ABSTRACT: This Author's Certificate introduces a seismic prospecting station contain-
ing an amplification-conversion channel, registration unit and power supply. The
unit is designed for improved reliability and operational convenience. A quartz os-
cillator with a frequency divider system is used as a precision-frequency power supply
and synchronizing unit. The oscillator is connected through amplifiers to the actua-
ting units of the station.

SUB CODE: 08 / SUBM DATE: 04Jun65

Card 1/1

UDC: 550.340.19

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721120005-3

KATKOV G. P.

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721120005-3"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721120005-3

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721120005-3"

KATKOV, G.G.

Sizing (Textile)

New sizing formulas. Tekst. prom. 12, No. 4, 1952

Monthly List of Russian Accessions, Library of Congress, June, 1952 UNCL

KATKOV, G.G., TORCHIN, Ya. G.

Weaving

Means of increasing the effectiveness of automatic weaving. Tekst. prom 12 No. 9, 1952

Monthly List of Russian Accessions, Library of Congress, December, 1952 UNCL.

ИСТОМИНА, Татьяна Ивановна; SUCHKOV, Ivan Yevodimovich; KATKOV, G.G.,
spetsredaktor; SEGEL', N.M., red.; KOGAN, V.V., tekhn.red.

["Kovo" company's warping machine] Partionnaia snoval'naiia mashina
firmy "Kovo." Moskva, Gos. nauchno-tekhn.izd-vo M-va legkoi
promyshl. SSSR, 1957. 56 p. (MIRA 11:4)
(Warping machines)

GETSELEV, Z.N., inzh.; KATKOV, G.K., inzh.; PERELYGIN, Yu.M., inzh.

Machinery for sorting and reloading lumber. Mekh.i avtom.pro-
izv. 16 no.2:47-48 F '62. (MIRA 17:3)

BATENKO. V.F., inzh.; GVOZDEV, V.F., inzh.; VAKHLER. V.A., inzh.; PIL'SHCHIKOV.
A.P., inzh.; ROGATSKIN, B.S., inzh.; BELYAKOVA, L.F., inzh.; KATKOV,
G.S., inzh.

Ion-exchange filters with compound operation in power blocks with
300 Mw. ratings. Elek. sta. 36 no.10:8-15 0 '65.

(MIRA 18:10)

AUTHOR: Katkov, G.S., Technician

SOV-91-58-10-10/35

TITLE: An Improved Method of Feeding the Coagulator in Chemical Water Purification (Uluchsheniye metoda dozirovki koagulyatora na khimvodoochistke)

PERIODICAL: Energetik, 1958,^cNr 10, pp 13 - 14 (USSR)

ABSTRACT: At one state regional electric power station (GRES) of the Moscow Regional Administration of Power Engineering Economy (Mosenergo) the usual system of a coagulation installation for water purification was installed. The author gives a brief description of the installation and adds that when the measuring hoppers were installed at a relative level of -1, the raw water pipeline assembled at a level of +5, and the system was tested, the coagulator could not be forced out of the hoppers if a washer with a diameter of 102 mm (the diameter of the raw water pipeline was 200 mm) was fitted. A newly fitted washer for a pressure drop of 600 mm mercury, limited the consumption of raw water. Therefore, a plunger pump ND-60 from a Riga factory, which kept the measuring hoppers within the outlet capacity, was switched on to feed the coagulator into the raw water. The pump only worked satisfactorily with solutions which had been purified of mechanical admixtures. To obtain such a solu-

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SOV-91-58-10-10/35

An Improved Method of Feeding the Coagulator in Chemical Water Purification

tion , a small filter, which was periodically cleaned (manually), was fitted to the intake of the pump. The feeding of the coagulator in accordance with the movement of the plunger, and also the control of the feeding was made more difficult. The work of the pump was upset if the valve box or the valves became obstructed. Attempts to find a system of coagulation and to select suitable equipment which would be independent of the fall in pressure of the raw and purified water were successful only when a centrifugal pump type LK-5-15 from the Yerevan Small Hydro-Turbine Plant was installed in series with a water-jet pump. LK-5-12 pumps from the Livny plant (Orlov region) can also be used. The performance of the pump is as follows: capacity is 5 to 13 cubic per hour, pressure 60 to 22 meters of water column, revolution speed 1450 rpm, power of electric motor 4.5 kilowatts. The system of coagulation envisages the installation in the inlet of these pumps of a water-jet pump, a revolution counter, and a comparatively small number of non-acidproof fittings, with the exception of a section of the coagulator feed, where a vinyl plastic ("viniplastovyy") valve is fitted.

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SOV-91-58-10-10/35

An Improved Method of Feeding the Coagulator in Chemical Water Purification

The regulating valve is an ordinary bronze of 15 mm in diameter. The author draws the following conclusions from the operation of this system: 1) the vacuum created by the water-jet and centrifugal pumps reaches 500 mm of mercury column; 2) the system makes it possible to regulate smoothly the feeding of the coagulator straight from the service tank; 3) when the work routine of the mechanical filters changes, uninterrupted feeding of the coagulator is achieved by means of the previously adjusted discharge; 4) the regulation of the discharge of the coagulator is achieved by means of a regulating valve, and the control of the coagulator feed is achieved via the cone of the revolution counter; 5) the coagulator feed can be made automatic. There are two figures.

1. Water--Purification

Card 3/3

KATKOV, G.S.

Experience in using water-jet pumps in chemical water purification
systems. Prom. energ. 15 no.7:20-24 J1 '60. (MIRA 15:1)
(Feed-water purification)

KATKOV, I. I., Cand of Tech Sci -- (diss) "Photo Shutters. Obtaining
Great Speeds of Wear, ~~and~~ Moscow, 1959, 12 pp (Moscow Higher Technical
School im Bauman) (KL, 1-60, 122)

S/077/60/005/005/001/006
B019/B059

AUTHOR: Katkov, I. I.

TITLE: Design of the power source for fast photographic between-the-lens shutters

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 5, no. 5, 1960, 343 - 351

TEXT: In continuation of a previous paper (Ref. 4) in which he dealt with the same problems, the author makes an attempt to explain the requirements that have to be met by the parameters of a shutter. The introduction deals with the motion of the shutter segments, while the main part, starting from the equation of the kinetic energy of the shutter, is devoted to the calculation of the frictional forces. Quickly spinning masses as sources of force are found to reduce the effect of the frictional forces. The kind of motion of the segment during the period in which the shutter is open is regarded as being the most general criterion for the right choice of the shutter parameters. That equation which describes the accelerations in the system as a function of the angle of rotation of the

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Design of the power source for...

S/077/60/005/005/001/006
B019/B059

lead gives an exact definition of the amount of the accelerations occurring and of the position of the maximum accelerations of the shutter parts. Thus, one can obtain important data on the suitable choice of the strength of the movable parts and on their bearings. From further discussions it follows that a spring shutter becomes less and less suitable, the wider the opening of the shutter. An analysis of the friction losses in the shutter and of the kinematics proved the author's assumption that it is most convenient to use quickly rotating masses as power sources for such shutters. Calculations show that in this way accelerations coming near the breaking strain of the segment may be attained. For the construction of the shutters a cam-shaft mechanism with little relative motion of the profiles is suggested. Investigation of the accelerations arising in such a system allows the frictional forces to be estimated. There are 3 figures and 4 Soviet-bloc references. ✓

SUBMITTED: July 23, 1959

Card 2/2

KATKOV, I.S

PHASE I BOOK EXPLOITATION 1042

Ural'skiy zavod tyazhelogo mashinostroyeniya, Sverdlovsk

Kovka i termicheskaya obrabotka (Forging and Heat Treatment) Moscow, Mashgiz, 1958. 132 p. (Series: Its Sbornik statey, vyp 5)
6,000 copies printed.

Ed.: Kvater, I.S., Engineer; Tech. Ed.: Dugina, N.A.; Ed.
(Ural-Siberian Division, Mashgiz): Sustavov' M.I., Engineer.

PURPOSE: This book is intended for engineers and technicians working in the field of forging and heat-treating of metals.

COVERAGE: The book presents material which reflects the achievements of Uralmashzavod (Ural Heavy Machine-building Plant imeni S. Ordzhonikidze) in the field of forging and heat-treating of metals. Various improvements in production methods, mechanization and automation of forging and heat-treating processes, application of various methods of inspection of forgings and elimination of rejects are described. Specific information on improvements in

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Forging and Heat Treatment 1042

forging and heat-treating of large parts such as turbine discs and rotors, cold-rolling-mill rolls, and crankshafts are presented. Descriptions are given of the results of new studies undertaken with a view to elimination of rejects and improvement of the quality of parts, determination of residual stresses at various cooling speeds, data on the efficiency of ultrasonic inspection and the effect of degassing of molten steel on the quality of forgings. The book was prepared by the members of the plant organization of NTOMashprom in connection with the 25th anniversary of the Ural Heavy Machine-building Plant.

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Forging and Heat Treatment 1042

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Parts on the Magnitude of Residual Stresses 111

Zabludovskiy, V.M. Determination of Residual Stresses in
Large Parts 115

Kozhevnikov, M.A. Investigation of Parts Rejected on
Ultrasonic Inspection 123

Kuruklis, G.L., and Vereshchagina, M.G. Sulphidization of Machine
Parts 130

AVAILABLE: Library of Congress

GO/ksv
1-7-59

Card 4/4

SOV/137-59-3-6891

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 28. (USSR)

AUTHOR: Katkov, I. S.

TITLE: Improving the Technology of Forging of Turbine Wheels (Sovershenstvovaniye tekhnologii kovki turbinnykh diskov)

PERIODICAL: Sb. statey. Ural'skiy z-d tyazh. mashinostr. im. S. Ordzhonikidze, 1958, Nr 5, pp 46-49

ABSTRACT: A description of the tools and the technology of forging (in backing dies) and semi-stamping of cover discs for steam turbines and discs and covers for turboblowers. The employment of this technology permitted increasing the efficiency of the utilization of metal and made it possible to reduce the amount of machining required. The initial cost of the manufacture of the die is balanced by the economy resulting from die forging of a production series of 12-15 components.

Ye. L.

Card 1/1

KOLTUN, Sergey Ivanovich; BORINSKIY, Mikhail L'vovich; KATKOV, Leonid Ivanovich; KAZARINOV, Boris Nikolayevich; KATKOV, N.P., inzh., retsenzent; BASSEYN, V.V., inzh., retsenzent; KATKOV, I.S., inzh., red.; YERMAKOV, N.P., tekhn.red.

[Mechanization of minor processes in press forging plants]
Malaya mekhanizatsiya kuznechno-pressovykh tsakhov; al'bom
chertezhei. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1960. 104 p. (MIRA 14:2)
(Forge shops--Equipment and supplies)

ZHIVOV, Kirill Ivanovich; KATKOV, Leonid Ivanovich; GUSEVA, Ye.M., red.;
DMITRIYEVA, N.I., tekhn.red.

[Beam warping machines] Partionnye snoval'nye mashiny. Moskva,
Gos. nauchno-tekhn. izd-vo lit-ry po legkoi promyshl. SSSR, 1958.
41 p. (MIRA 12:8)

(Textile machinery)

KATKOV, L.I.
YEFREMOVA, S.M.; KATKOV, L.I.

The Zh K-13 Jacquard card-repeating machine. Biul.tekh.-ekon.inform.
no.2:41-43 '58. (MIRA 11:4)
(Jacquard weaving)

KOLTUN, Sergey Ivanovich; BORINSKIY, Mikhail L'vovich; KATKOV, Leonid Ivanovich; KAZARINOV, Boris Nikolayevich; KATKOV, N.P., inzh., retsenzent; BASSEYN, V.V., inzh., retsenzent; KATKOV, I.S., inzh., red.; YERMAKOV, N.P., tekhn.red.

[Mechanization of minor processes in press forging plants]
Mekhanizatsia kuznechno-pressovykh tsekhov; al'bom
chertezhei. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1960. 104 p. (MIRA 14:2)
(Forge shops--Equipment and supplies)

KATKOV, M. I.

Cand Agr Sci - (diss) "Several problems of agro-techniques of the potato and diagnostics of irrigation for this plant in the steppe zone of the Ukrainian SSR." Berislav, 1961. 14 pp; 2 pp of illustrations; (Ministry of Agriculture Ukrainian SSR, Odessa Agr Inst); 250 copies; free; (KL, 10-61 sup, 221)

KATKOV, Nikolay Pavlovich; BASSEIN, Vladimir Vasil'yevich; KATKOV, Mikhail Pavlovich; KUDRYAVTSEV, Nikolay Aleksandrovich; MYSHKOVSKIY, V.A., inzh., retsensent; SLOBTSOV, V.Ye., inzh., retsensent; OLEV, S.M., inzh., retsensent; DUNAYEV, P.A., red.; YERMAKOV, N.P., tekhn. red.

[Mechanization of auxiliary operations in forging; an album of drawings] Mekhanizatsia protsessov goriachei shtampovki; al'bom chertezhei. Pod red. P.A.Dunaeva. Moskva, Mashgiz, 1963. 111 l. (MIRA 16:8)
(Forging--Equipment and supplies)

KROYTER, M.K.; KATKOV, M.T.

Some data on the electrophoretic study of serum proteins and
the types of hemoglobin in sheep of various breeds. Izv. AN
Kazakh. SSR. Ser. biol. nauk 2 no.3:76-81 My-Je '64.

(MIRA 17:10)

KROYTER, M.K.; KATKOV, M.T.

Some results of crossing fine- and coarse-wool crosses with
semi-fine-wool rams. Trudy Inst. eksp. biol. AN Kazakh. SSR
11:94-104 '65.

(MIRA 18:10)

KROYTER, M.K.; KATKOV, M.T.; ABAKUMOV, N.I.

Physiological features of various breeds of sheep and their crosses
based on the data of the electrophoretic study of serum proteins
and hemoglobin. Trudy Inst. eksp. biol. AN Kazakh. SSR 11:113-123
'65. (MIRA 18:10)

KATKOV, M.V., starshiy prepodavatel'

Chemoprophylaxis of Amidostomum infestation of geese.

Trudy VIGIS 11:77-79 '64.

(MIRA 18:12)

1. Yakutskiy gosudarstvennyy universitet.

KATKOV, M.V., aspirant

Using piperazine in goose amidostomosis. Veterinariia no.12:24-25 D
'63. (MIRA 17:2)

1. Vsesoyuznyy institut gel'mintologii imeni akademika K.I.Skryabina.

KOVALEV, I.; KATKOV, N.; KARPUSHIN, A.

Reply to M.S. Neiman's article "Radio engineering courses." Izv.
vys. ucheb. zav.; radiotekh. 3 no.4:523 J1-Ag '60. (MIRA 13:10)

1. Kafedra teoreticheskikh osnov elektrotekhniki Ryazanskogo
radiotekhnicheskogo instituta.
(Radio--Study and teaching)

KATKOV, N.F.

Role of the newspaper "Pravda" in the dissemination of new forms and
methods of political propaganda in 1918-1920. Trudy LEIS no.4:77-
92 '59. (MIRA 13:10)
(Russia--Revolution, 1917-1921) (Pravda)

KATKOV, N. G.

Dissertation: "Magnetic Dielectrics Under Pulse Conditions and the Question of the Theory of Their Magnetic Spectra." Cand Tech Sci, Moscow Order Lenin Power Engineering Inst imeni V. M. Molotov, 4 Jun 54. Vechernyaya Moskva, Moscow, 26 May 54.

SO: SUM 284, 26 Nov 1954

USSR/Physics - Magnetic spectra

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721120005-3"

Card 1/2 Pub. 43 - 1/11

Authors : Katkov, N. G., and Polivanov, K. M.

Title : Magnetic spectra of a material dependent on the macroscopic structure of the latter

Periodical : Izv. AN SSSR ser. fiz. 18/4, 419-431, Jul - Aug 1954

Abstract : The dependence of magnetic permeability on the frequency of an alternating magnetic field is analyzed. By analogy with light phenomena, the magnetic spectra are considered as dispersions. In connection with various physical processes conditioning the mentioned dependence, three types of dispersion are considered: 1. dispersion of a substance (or a medium); 2. dispersion of a shape (or a body); and 3. dispersion of a structure (or a material, or a body of complex form). The third type of dispersion takes place in artificially made magneto-dielectrics (ferrites). A core (of a transformer) is considered as one of such ferrites. The author's effort to find a solution for the problem on the magnetic structural dispersion of such cores resulted in the expression of the so-called complex or imaginary magnetic permeability of a substance:

$$\bar{\mu} = \frac{\mu H_0}{H_0} = \mu' \left[1 - \frac{64}{\pi^2} \sum_{m,n} \frac{\gamma_1^2 \gamma_m^2 G_m}{\gamma_1^2 + \gamma_{m,n}} \right] \rho$$

Card 2/2 Pub. 43 - 1/11

(Additional card)

Izv. AN SSSR ser. fiz. 18/4, 419-431, Jul - Aug 1954

Abstract : which is considered to be most general expression; it takes care of all possible cases. Some particular cases are considered and analyzed. Twenty-two references 3-German; 6-USA; 13-USSR (1926-1953). Diagrams.

Institution : V. M. Molotov Energetics Institute at Moscow

Submitted : July 26, 1954

USSR/ Physics - Ferrites

Card 1/1 Pub. 43 - 2/11

Authors : Katkov, N. G.

Title : Ferrites in a pulsating magnetic field

Periodical : Izv. AN SSSR ser. fiz. 18/4, 432-443, Jul-Aug 1954

Abstract : A theoretical and experimental study of the magnetization of ferromagnetic cores is presented. A toroid with rectangular cross-section is chosen for the studies. The magnetization is done by a pulsating electric current passing through the center of the toroid core and around it. An equation for the single component of the magnetic field generated by the current is given. The general solution of it is presented for a weak field. Application of the solution to 4 particular cases is analyzed. Methods (based on those solutions) of determination the adequacies of ferrite cores are discussed. New methods of quick determination of the qualities of the cores are suggested. Four references; 1-USA; 3-USSR (1936-1952). Illustrations; diagrams.

Institution : V. M. Molotov Energetics Institute at Moscow

Submitted : July 20, 1954

KATKOV, N. G., FRADKIN, B. M., POLIVANOV, K. M., and SKUGAREV, V. V., (Moscow)

"To the Theory of Artificial Magnetodielectric from Metallic Powder,"
a paper submitted at the International Conference on Physics of Magnetic
Phenomena, Sverdlovsk, 23-31 May 56.

✓ KATKOV, N. G.
and
BALYABIN, A. N.

"Measurement of the Quality Factor of Cavity Resonators of Superhigh-Frequency Instruments," pp 108-115, ill, 5 ref

Abst: A method of determination of a cavity resonator parameter, based on the principle of spectrum analyzer is suggested. The advantages of the method are discussed.

SOURCE: Trudy Ryazanskogo Radiotekhnicheskogo In-ta MVO SSSR (Works of the Ryazan' Radio Engineering Institute of the Ministry of Higher Education USSR), Volume 1, Moscow, 1956

Sum 1854

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721120005-3

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721120005-3"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721120005-3

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721120005-3"

SHAMAYEV, Yu.M., dotsent, kand.tekhn.nauk; KATKOV, N.G., dotsent, kand.
tekhn.nauk.

Basis for calculating the anisotropic walls and bottom of an
electrolytic tank with increased equivalent dimensions. Trudy
MEI no.27:105-117 '58. (MIRA 13:4)
(Electrolysis)

USSR / Farm Animals. Cattle

Q-2

Abs Jour: Ref Zhur-Biol., No 3, 1958, 1290

Author : Ishukova F. A., Katkov N. I.

Inst :

Title : Experience in Raising Calves in Unheated Sheds
(Opyt vyrashchivaniya telyat v neotaplivayemykh
pomeshcheniyakh)

Orig Pub: Tr. Bashkirsk. s.-kh. in-ta, 1956, 7, 155-161

Abstract: Calves were kept in groups in unheated sheds on thick bedding, in the winter-spring period, at a temperature of 1 - 11.1°C. The amount of feed used during one year per one calf was (in centners): whole milk 3.0, defatted milk 6.0, oat flour and bran 3.8, silage 4.0, beetroot 6.0, hay 7.6, green fodder supplement 4.0. In a space of one year, an average daily increase in weight of 697 - 713 g.

Card 1/2

✓ KATKOV, N. P. Cand Tech Sci -- (diss) "Study of the ~~Per~~
Performance and Determination of the Parameters of the Crankshaft
Drawing Press With ~~XXXXXXXXXX~~ an ^{Mechanism} Attachment for Adjusting
Plunger ~~Slide~~ Speed." Chelyabinsk, 1957. 17 pp 20 cm. (Min of Higher
Education USSR, Ural Polytechnic Inst im S. M. Kirov), 100 copies
(KL, 18-57, 96)

-27-

SOV/137-59-1-1730

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 228 (USSR)

AUTHOR: Katkov, N. P.

TITLE: Determination of the Parameters of a Drawing Press Equipped With a Mechanism for Equalization of the Speed of Travel of the Crosshead
(Opredeleniye parametrov vytyazhnogo pressa s mekhanizmom vyравnivaniya skorosti polzuna)

PERIODICAL: Sb. statey. Chelyab. politekhn. in-t, 1958, Nr 8, pp 32-57

ABSTRACT: In order to determine optimal operational parameters ensuring maximum possible efficiency and a maximum number of strokes, the kinematic system of the press was analyzed. The system consisted of a crankshaft-and-connecting-rod mechanism (M) and a pin-jointed four-bar-linkage M serving to equalize the velocity (V) of the crosshead during the work stroke. Principal dimensional relationships of the M's were established together with the optimal numerical values necessary to attain equalization of the V of the crosshead over the greater portion of its work stroke, as well as to achieve a number of strokes 1.8 times as great as that possible in a standard crankshaft press. Formulae for parameters

Card 1/2

SOV/137-59-1-1730

Determination of the Parameters of a Drawing Press (cont.)

were derived on the basis of an analysis of the minimum amount of energy expended by a press having such parameters. It was verified experimentally that the mechanical efficiency of the press is increased by 15% under optimal parameters; V graphs obtained by oscillographic methods revealed that the greater portion of the work stroke is characterized by an almost constant V.

A. F.

Card 2/2

KATkov, N.P.

25(1)

PHASE I BOOK EXPLOITATION SOV/2305

Chelyabinsk. Politekhnikheskiy institut

Voprosy teorii i praktiki obrabotki metallo/ davleniyem (Problems in the Theory and Practice of Metal Forming) Moscow, Mashgiz, 1959.
103 p. (Series: Its: [Sbornik] vyp. 14) Errata slip inserted. 5,000 copies printed.

Reviewers: V.B. Skorniyakov, Candidate of Technical Sciences, V.G. Belakin, Engineer, N.A. Bedin, V.A. Korshunov, I. I. Kozhinskiy, L.A. Kritsshteyn, B. N. Malyarovskiy, M.A. Shubik, and D. I. Fishman; Ed.: V.N. Vydrina, Candidate of Technical Sciences; Exec. Ed. (Ural-Siberian Division, Mashgiz): A.V. Kaletina, Engineer; Tech. Ed.: N.A. Dugina.

PURPOSE: The collection of articles is intended for engineers, technicians, and scientific workers in metal forming.

COVERAGE: This collection of articles, written by staff members of the Chelyabinsk politekhnikheskiy institut (Chelyabinsk Polytechnical Institute), deals with problems on the theory, processes, and equipment of metal forming.

Card 1/5

• Problems in the Theory and Practice of Metal Forming SOV/2305

Problems in change of shape and state of stress of parallelepipeds and cylindrical bodies subjected to flattening in plane parallel forging heads are discussed. The essentials of the theory of the interaction between strip and roll, and the question of slip along contact surfaces during rolling are explained. An analytic method for the kinematic design of steam-distribution mechanisms for steam hammers is presented. Precision stamping of thin-walled parts of intricate shape is described. An investigation of the function of repeaters in in-tandem rolling mills is discussed. An article on the testing of electric heating furnaces is also included. No personalities are mentioned. References follow several of the articles.

TABLE OF CONTENTS:

Preface	3
Skonechnyy, A.I. [Candidate of Technical Sciences]. State of Stress in Metal and Analysis of Change in Shape of Prismatic Specimens Subjected to Flattening in Plane Forging Heads	5
The author presents formulas for the calculation of lateral spread, elongation, and the external friction coefficient of prismatic specimens subjected to flattening in plane forging heads. Consideration is given to the effect of stress distribution.	

Card 2/5

Problems in the Theory and Practice of Metal Forming SOV/2305

- Boguslavskiy, G.V. [Engineer]. Deformation of Round Bodies During Radial Reduction Between Flat Plates 35

The article deals with an experimental investigation of the above phenomenon. The author presents mathematical data and the conclusions reached concerning the nonuniformity and distribution of deformations in radial and longitudinal directions. The project was supervised by Professor V.V. Sheveykin, Doctor of Technical Sciences.

- Boguslavskiy, G.V. Internal Forces Active During Plastic Deformation 48

Experiments in press forming carried out in 1956 on 315 specimens are described. Internal forces were measured by a special dynamometer and a press. Simultaneous measurements of total pressure, radial forces, and reduction were recorded. Diagrams showing the relationship between these factors are shown for different specimen shapes and conclusions are presented. This project was also supervised by V.V. Shveykin.

Card 3/ 5

Card 4/5

Shishkov, B.I. [Engineer]. Precision Stamping of Thin-walled Parts of Intricate Shape
Types of dies and the technique for stamping very thin (0.2 to 0.02mm) parts for instruments are described, and suggestions for efficient operation are presented.

76

Vydrin, V.N. Effect of the Spread on Slip During Rolling
The article discusses slip at any point along the arc of contact of a strip and its relation to spread. The effect of spread on forward slip and on the coefficient of external friction is also discussed.

70

Problems in the Theory and Practice of Metal Forming SOV/2305
Vydrin, V.N. [Candidate of Technical Sciences]. On the Physical Nature of Forward Slip
The author briefly describes the theory of the interaction between strip and rolls during rolling. The theory, claimed to be new, is based on the application of the law of the conservation of energy to the rolling process. The formulas derived agree with those of other theories and are confirmed by experimental data.

63

Problems in the Theory and Practice of Metal Forming SOV/2305

Katkov, N.P. [Engineer]. On the Problem of Kinematics in Steam Distribution Mechanisms of Steam Hammers

83

Formulas for kinematic dependencies derived in this investigation permit the design of steam distribution mechanisms based on ram dimensions and ram travel.

Vydrin, V.N., P.N. Amosov [Engineer], and O.I. Tishchenko [Engineer]. Investigation of the Function of Repeaters on a Light Merchant Mill

91

The author makes an analogy between the motion of a bar in a repeater and belt drive. He uses Euler's formula for belting to derive the formula for the motion of a bar in a repeater. He uses this formula as a criterion for analyzing the function of a repeater. Experimental investigation involved and equipment used are described, and data are presented.

Raytses, V.B. [Candidate of Technical Sciences] and A.P. Shitov [Engineer]. Production Testing of Electric Heating Furnaces

101

In this article diagrams are presented showing temperature changes and power consumption of starting and during operation, losses during idling, and the productivity of electric heating furnaces.

AVAILABLE: Library of Congress

Card 5/5

GO/fal

9-21-59

KATKOV, N.P., inzh.

Kinematics of the mechanism of steam distribution in steam
and air hammers. Sbor. st. GZPI no.14:83-90 '59.

(MIRA 12:9)

(Forging)

KOLTUN, Sergey Ivanovich; BORINSKIY, Mikhail L'vovich; KATKOV, Leonid Ivanovich; KAZARINOV, Boris Nikolayevich; KATKOV, N.P., inzh., retsenzent; BASSEYN, V.V., inzh., retsenzent; KATKOV, I.S., inzh., red.; YERMAKOV, N.P., tekhn.red.

[Mechanization of minor processes in press forging plants]
Malaia mekhanizatsiia kuznechno-pressovykh tsekhov; al'bom
chertezhei. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1960. 104 p. (MIRA 14:2)
(Forge shops--Equipment and supplies)

S/182/60/000/010/012/015/XX
A161/A030

AUTHOR: Katkov, N.P.

TITLE: Design Problems of the Outer Slide Drive of Double-Action Single-Crank Presses

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, 1960, No. 10, pp. 25 - 27

TEXT: The toggle-joint mechanism of single-crank presses ensures immobility of the outer slide holding the billet only during the time when the last pair of levers passes the dead point. During the further standing time the slide slightly retracts from the bottom limit position. The problem is to achieve a minimum of retraction of the outer slide. The system is analyzed. The deduced relations make possible the calculation of the drive elements by two given values - the travel h_m of the outer slide and the standing angle $\alpha = 2\alpha_0$, to achieve minimum slide retraction during standing, and to determine the magnitude of the retraction. It is stressed that the relations do not take into account the actual placing of the outer slide drive in the press and the distribution of efforts in the separate links in the press system. Therefore, the results of the analysis must be considered in accordance with the real design possibilities. The toggle-joint mechanisms in double-action presses are of different designs,

Card 1/3

S/182/60/000/010/012/015/XX
A161/A030

Design Problems of the Outer Slide Drive of Double-Action Single-Crank Presses

the author analyzes a duplex system (Fig. 1) taking the position in Figure 1b for initial (when the outer slide holds down the billet, and the driving crank is on the dead point). The analysis ends with the conclusion that a definite opening angle α_p between the crank r of the outer slide drive and the crank R of the inner slide drive crankshaft (Fig. 4) must be set to ensure proper interaction. (Figure 4 shows the positions of the outer and inner slide drives at the moment of beginning extrusion). It can be seen clearly that the angle will be $\alpha_p = 180 - \alpha_k + \alpha_0$ (18), where α_k is the crankshaft turn angle counting from the bottom limit position at the start of extrusion. The vertical distance z between the bearing of the crankshaft and the bearings of the cranks b and c (Fig. 2a) at $\psi = 180^\circ$ will be $z = b + a \sin \beta_0 + l - r - g$ (19). The space g must be smaller than the difference $l - r$. The dimension f must be smaller than $g \sin \alpha_0$, in order to prevent the crank l from intercrossing the trunnions of the joint of the crank α with the slide. Approximately, $g = 0.8 (l - r)$; $f = 0.5 g \sin \alpha_0$ (20) is recommended. There are 4 figures.

Card 2/3

A10, AU30

Design Problems of the Outer Slide Drive of Double-Action Single-Crank Presses

Figure 1 a and b

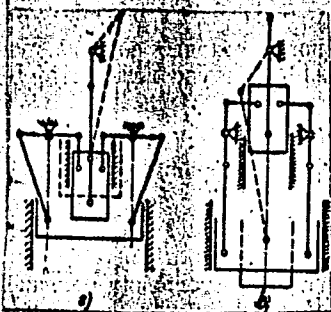


Figure 2 a, b and c

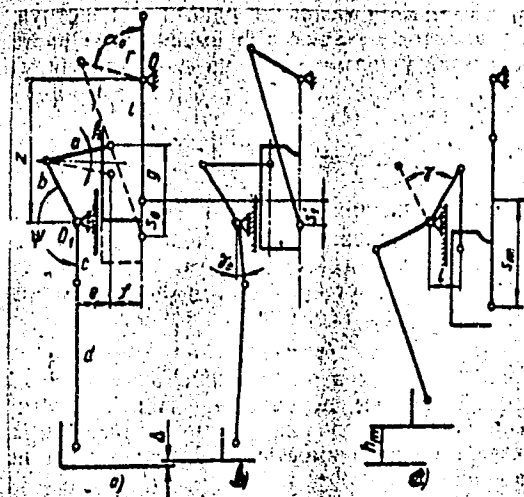
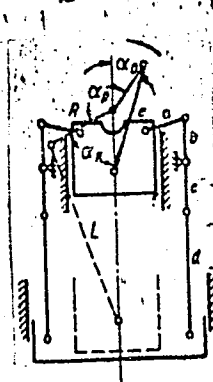


Figure 4



Card 3/3

KATKOV, N.P.

Determining the elements of a triple toggle on double-action
presses. Kuz.shtam. proizv. 3 no.1:33-36 Ja '61. (MIRA 14:1)
(Power presses)

KATKOV, N.P.

Determining the parts of a double-action, two-toggle, two-crank
press. Kuz.-shtam. proizv 4 no.6:30-36 Je '62. (MIRA 15:6)
(Power presses)

KATKOV, Nikolay Pavlovich; BASSEIN, Vladimir Vasil'yevich; KATKOV,
Mikhail Pavlovich; KUDRYAVTSEV, Nikolay Aleksandrovich;
MYSHKOVSKIY, V.A., inzh., retsenzent; SLOBTSOV, V.Ye.,
inzh., retsenzent; OLEV, S.M., inzh., retsenzent;
DUNAYEV, P.A., red.; YERMAKOV, N.P., tekhn. red.

[Mechanization of auxiliary operations in forging; an
album of drawings] Mekhanizatsiya protsessov goriachei
shtampovki; al'bom chertezhei. Pod red. P.A.Dunaeva.
Moskva, Mashgiz, 1963. 111 l. (MIRA 16:8)
(Forging—Equipment and supplies)

KATKOV, N.P., kand. tekhn. nauk; IVANOV, S.K., starshiy prepodavatel'

Determining geometrical parameters of a lever-pinion
mechanism of a double-action press with an accelerated
cycle. Izv. vys. ucheb. zav.; mashinostr. no.9:160-165
'65. (MIRA 18:11)

KATKOV, O., inzh.

Devices for bracing the sides of trenches. Stroitel'.
no.7:30-31 JI '61. (MIRA 14:8)
(Shoring and underpinning)

KATKOV, O.

They over-fulfill planned assignments. Stroitel' 8 no.6:26-28
Je '62. (MIRA 15:7)
(Construction industry)

SHKOL'NIKOVA, L.; KATKOV, O.

Outstanding construction workers of the country. Stroitel' 8
no.11:6-8 N '62. (MIRA 16:1)

(Construction industry)

KATKOV, O., inzh.

Work methods with earth-working machinery. Stroitel' 8 no.1:
20-23 Ja '62. (MIRA 1632)
(Earthmoving machinery)

KATKOV, G. M. ENGR

Dissertation: "On the Optimum Composition of Slags in Electric Smelting of Copper-Nickel Ore." Cand Tech Sci, Moscow Inst of Nonferrous Metals and Gold imeni M. I. Kalinin, 21 Apr 54. (Vechernyaya Moskva, Moscow, 15 Apr 54)

SO: SUM 243, 19 Oct 1954

87658

18.1210

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 10, p. 95,
23162

S/137/60/000/010/008/040
A006/A001

AUTHORS: Khazanov, Ye.I., Katkov, O.M., Pepelyayev, P.Ye.

TITLE: Experience in the Melting of Silico-Aluminum Alloys From Sillimanite Concentrate in an Electric Furnace

PERIODICAL: Tr. Vost.-Sib. fil. AN SSSR, 1959, No. 24, pp. 106 - 111

TEXT: Experiments were made to obtain Si-Al alloys from sillimanite concentrate (briquetted and granulated) in a large size electric laboratory furnace. Sillimanite concentrate, commercial alumina were used as initial materials and coal as a reducing agent; aqueous solution of sulfite alkali of 1.255 specific weight was used as a binding material. The degree of refining of the concentrate was 97% - 0.149 mm. The charge was calculated to obtain an alloy with about 68 Al. The amount of the reducing agent was 100% of the amount required for the reduction of all the oxides in the charge. An amount of 2 - 4% sulfite alkali was introduced into the charge (moisture of the charge 15 - 37%), briquetted and

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S/137/60/000/010/008/040
A006/A001

Experience in the Melting of Silico-Aluminum Alloys From Sillimanite Concentrate
in an Electric Furnace

melted in a single-phase electric arc furnace with a conducting carbon bottom. On the average 10 - 12 kg charge materials per hour were melted in the furnace. Teeming of the metal was made periodically every 30 minutes. The temperature of the tap metal was 1,500 - 1,600°C. Melting of the granulated charge proceeds smoothly and has the same indices as those of a briquetted charge.

G.S.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

8(2)

AUTHOR: Katkov, O. M.

SOV/32-25-3-50/62

TITLE: An Apparatus for the Simultaneous Measurement of the Viscosity and Electrical Conductivity of Slags (Ustanovka dlya odnovenennogo izmereniya vyazkosti i elektroprovodnosti shlakov)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 3, pp 372-374 (USSR)

ABSTRACT: An apparatus was designed which permits the simultaneous determination of the viscosity and electrical conductivity of metallurgical slags up to 1400-1430°. A sketch of the apparatus (Fig 1) shows that the viscosimeter consists of two coaxial revolving cylinders with a fixed crucible and a revolving suspension device. The viscosity is measured through the angle of twist of the steel wire of the suspension device. The calibration of the viscosimeter was done by means of castor oil as well as mixtures (3:1, 3:2 and 1:1) of castor oil and colophony. The heating-up of the slag under examination is carried out in an electric stove containing the crucible with the sample. Two electrodes for the determination of the electrical conductivity are welded onto the crucible (Fig 2). The wiring diagram of the device for measuring the resistance

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SOV/32-25-3-50/62

An Apparatus for the Simultaneous Measurement of the Viscosity and
Electrical Conductivity of Slags

of the slag is given (Fig 2). A d.c. bridge of the UMV type was used. Instead of the zero galvanometer a lamp galvanometer was used. The absolute values of electric conductivity of the slags were obtained by comparing the results with standard samples the conductivity of which was known. The measurements were taken at a cooling rate of 2-4° per minute, the accuracy of measurements achieved (in simultaneous viscosity and electric conductivity determinations) was $\pm 10-15\%$. There are 2 figures.

ASSOCIATION: Irkutskiy gosudarstvennyy institut redkikh metallov
(Irkutsk State Institute of Rare Metals)

Card 2/2

KATEOV, O.M.

Standards for measuring the viscosity of metallurgical slags. Zav.
lab. 26 no.3:360-361 '60. (MIRA 13:6)

1. Irkutskiy gosudarstvennyy institut redkikh metallov.
(Slag) (Viscosity)

KATKOV, O. M.

Investigating conditions for the obtention of waste slags during the smelting of tin concentrates in electric furnaces. Trudy Vost. Sib. fil. AN SSSR no.41:33-38 '62.

(MIRA 15:10)

1. Irkutskiy nauchno-issledovatel'skiy institut redkikh metallov.

(Tin—Electrometallurgy) (Slag)

AUTHORS: Derkach, V. P., Katkov, P. A.

SOV/120-58-6-26/32

TITLE: An Instrument for the Visual Observation of the Amplitude Characteristics (Pribor dlya vizual'nogo nablyudeniya amplitudnykh kharakteristik)

PERIODICAL: Pribery i tekhnika eksperimenta, 1958, Nr 6, pp 111-112 (USSR)

ABSTRACT: The circuit of the instrument is shown in Fig.1. The first three tubes of the circuit form a rectangular pulse generator; the first tube is connected in a blocking oscillator circuit which produces narrow pulses; these are applied to the grid of the second tube and hence, after inversion and amplification, to the grid of the third tube; narrow rectangular pulses of positive polarity are obtained at the output of the third tube. The pulses are applied to the control grid of a pentode whose suppressor grid is supplied with a sawtooth voltage. This waveform modulates the amplitude of the pulses. The negative amplitude-modulated rectangular pulses from the anode of the pentode are applied to an amplifier tube, where they are inverted; from the anode of this tube, the pulses are fed to the input of a cathode follower which acts as a source of amplitude-modulated pulses. The

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An Instrument for the Visual Observation of the Amplitude Characteristics SOV/120-58-6-26/32

resulting signal can be applied to an investigated device; the output pulses of this device are applied to the vertical plates of an oscillograph whose horizontal plates are actuated by the same sawtooth voltage which modulates the pulse amplitude. The instrument proved successful in operation and was found useful in the measurement of the modulated non-linearities. The paper contains 1 figure.

SUBMITTED: December 3, 1957.

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KATK , Pavel Pavlovich; KOSTROV, Aleksey Ivanovich; FAYNBERG,
Vasim Davidovich [deceased]; AIRUKH, M.G., inzh.
retsenzent; IVOCHKIN, V.F., inzh., retsenzent; SMIRNOV,
V.I., nauchn. red.; SHAKHNOVA, V.M., red.

[Motorboats and launches made of plastics] Shliupki i ka-
tera iz plastmass. Leningrad, Izd-vo "Sudostroenie,"
1964. 263 p.
(MIRA 17:6)

NIKOLAYEV, Yevgeniy Vladimirovich; KATKOV, Pavel Pavlovich;
ROZENFLANIS, M.S., inzh., retsenzent; KOCHANOV, M.M.,
nauchn. red.; LISOK, E.I., red.

[Work safety in the building of plastic vessels] Bezopas-
nost' truda v plastmassovom sudostroenii. Leningrad, Su-
dostroenie, 1965. 85 p. (MIRA 18:8)

KATKOV, P.P., inzh.; KUSHELEV, V.V., inzh.

Installing the maximum amount of equipment before sealing in sections.
Sudostroenie 25 no.1:63-64 Ja '59. (MIRA 12:3)
(Shipbuilding)

KATKOV, P.P., inzh.; KOSTROV, A.I., inzh.

Pleasure boat made of plastic materials. Sudostroenie 26 no.10:40-48
0'60. (MIRA 13:10)
(Boatbuilding) (Plastics)

BAMDAS, A.M.; KATKOV, R.N.; SHAPIRO, S.V.

Contactless cascade generator. Izv. vys. ucheb. zav.; elektromekh.
1 no.5:50-54 '58. (MIRA 11:8)
(Electric generators)

PUSTOVOYTENKO, I.P.; KATKOV, S.V.

Recovery of pipes with welded semi-joints. Burenie no.4:9-11 '64.
(MIRA 18:5)

1. Khar'kovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta prirodnogo guza.

PUSTOVOYTENKO, I.P.; KATKOV, S.V.

Breakdown of metal objects at the wall bottom. Burenie no.5:

22-23 '64.

(MIRA 18:5)

1. Ukrainskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta prirodnogo gaza i Shebelinskaya spetsializirovannaya kontora eksperimental'nogo bureniya.